

1. A method of decoding partially encrypted content, comprising:
 - receiving partially encrypted content comprising unencrypted content, first content encrypted under a first encryption system and second content encrypted under a second encryption system;
 - decrypting the second encrypted content; and
 - decoding the clear first content and the decrypted second content to decode the partially encrypted content.
2. The method according to claim 1, wherein the receiving, decrypting and decoding are carried out in a television device.
3. The method according to claim 2, wherein the television device comprises a television set-top box.
4. The method according to claim 1, wherein the receiving, decrypting and decoding are carried out in an integrated circuit.
5. The method according to claim 1, wherein the receiving, decrypting and decoding are carried out in one of an application specific integrated circuit and a field programmable gate array.

- 1 6. A method of decoding a partially encrypted television signal, comprising:
2 receiving a message identifying a primary packet identifier (PID) for a
3 program and a secondary PID for the program;
4 decrypting packets having the secondary PID; and
5 combining the decrypted packets with packets having the primary PID to
6 form a data stream representing the program.
7
- 8 7. The method according to claim 6, further comprising decoding the decrypted
9 packets and the packets having the primary PID.
10
- 11 8. The method according to claim 6, further comprising mapping the decrypted
12 packets to the primary PID.
13
- 14 9. The method according to claim 8, wherein the mapping is carried out in an
15 integrated circuit device.
16
- 17 10. The method according to claim 8, wherein the mapping is carried out in one
18 of an application specific integrated circuit device and a field programmable gate
19 array.
20
- 21 11. The method according to claim 6, wherein packets having the primary PID
22 comprise unencrypted packets and encrypted packets and further comprising:
23 receiving encrypted packets having the primary PID; and
24 discarding the encrypted packets having the primary PID.
25
- 26 12. The method according to claim 6, carried out in a television device.
27
- 28 13. The method according to claim 6, carried out in a television set-top box.
29

1 14. A method of decoding partially encrypted television program, comprising:
2 identifying a television program by packets associated with a primary packet
3 identifier and a secondary packet identifier;
4 decrypting packets having the secondary packet identifier.
5

6 15. The method according to claim 14, further comprising decoding the
7 decrypted packets having the secondary packet identifier along with packets having
8 the primary packet identifier to decode the partially encrypted television program.
9

10 16. The method according to claim 14 further comprising discarding encrypted
11 packets having the primary packet identifier.
12

13 17. The method according to claim 14, wherein certain of the packets
14 associated with the primary packet identifier are encrypted according to a first
15 encryption method, and wherein the packets having a secondary packet identifier
16 are encrypted according to a second encryption method.
17

18 18. The method according to claim 14, wherein the encrypted packets comprise
19 transport stream packets carrying an MPEG packetized elementary stream (PES)
20 header as a portion of a payload thereof.
21

22 19. The method according to claim 14, wherein the encrypted packets comprise
23 audio packets.
24

25 20. The method according to claim 14, wherein the encrypted packets comprise
26 time sliced samples of the television program.
27

28 21. The method according to claim 14, wherein the encrypted packets comprise
29 packets critical to decoding the television program.
30

1 22. The method according to claim 14, wherein the television program is
2 compressed and wherein the encrypted packets comprise packets critical to
3 decompression of the television program.

4
5 23. The method according to claim 14, wherein the encrypted packets comprise
6 N packets out of every M packets where N is less than M.

7
8 24. The method according to claim 14, further comprising remapping packets
9 having the secondary packet identifier to have the primary packet identifier.

10
11 25. An electronic storage medium storing instructions which, when executed on
12 a programmed processor, carry out the method of decoding a television program
13 according to claim 14.

14
15 26. An electronic transmission medium carrying a sequence of instructions for
16 carrying out a method of decoding a television program by the method according
17 to claim 14.
18
19

1 27. A television device, comprising:
2 means for receiving a partially encrypted television program, the television
3 program being identified by packets associated with either a primary packet
4 identifier or a secondary packet identifier;
5 a decrypter that decrypts packets having the secondary packet identifier; and
6 a decoder that decodes the decrypted packets having the secondary packet
7 identifier along with packets having the primary packet identifier to decode the
8 partially encrypted television program.
9

10 28. The apparatus according to claim 27, further comprising means for
11 discarding encrypted packets having the primary packet identifier.
12

13 29. The apparatus according to claim 27, wherein certain of the packets
14 associated with the primary packet identifier are encrypted according to a first
15 encryption method, and wherein the packets having a secondary packet identifier
16 are encrypted according to a second encryption method.
17

18 30. The apparatus according to claim 27, wherein the encrypted packets
19 comprise transport stream packets carrying an MPEG packetized elementary
20 stream (PES) header as a portion of a payload thereof.
21

22 31. The apparatus according to claim 27, wherein the encrypted packets
23 comprise audio packets.
24

25 32. The apparatus according to claim 27, wherein the encrypted packets
26 comprise video packets.
27

28 33. The apparatus according to claim 27, wherein the encrypted packets
29 comprise time sliced samples of the television program.
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1 34. The apparatus according to claim 27, wherein the television device
2 comprises a television set-top box.
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1 35. A content player, comprising:
2 means for receiving partially encrypted audio visual content, the content
3 being identified by packets associated with either a primary packet identifier or a
4 secondary packet identifier;

5 a decrypter that decrypts packets having the secondary packet identifier; and
6 a decoder that decodes the decrypted packets having the secondary packet
7 identifier along with packets having the primary packet identifier to decode the
8 partially encrypted audio visual content.
9

10 36. The apparatus according to claim 35, further comprising means for
11 discarding encrypted packets having the primary packet identifier.
12

13 37. The apparatus according to claim 35, wherein certain of the packets
14 associated with the primary packet identifier are encrypted according to a first
15 encryption method, and wherein the packets having a secondary packet identifier
16 are encrypted according to a second encryption method.
17

18 38. The apparatus according to claim 35, wherein the encrypted packets
19 comprise transport stream packets carrying an MPEG packetized elementary
20 stream (PES) header as a portion of a payload thereof.
21

22 39. The apparatus according to claim 35, wherein the encrypted packets
23 comprise audio packets.
24

25 40. The apparatus according to claim 35, wherein the encrypted packets
26 comprise video packets.
27

28 41. The apparatus according to claim 35, wherein the encrypted packets
29 comprise time sliced samples of the television program.
30

1 42. The apparatus according to claim 35, wherein content player comprises one
2 of a television device, a PDA, a music player and a personal computer.

2007/05/01 "PATENT"

- 1 43. A television set-top box, comprising:
2 a receiver that receives:
3 a plurality of unencrypted elementary stream packets; and
4 a plurality of encrypted packets, wherein both the unencrypted are
5 required to decode a television program;
6 a decrypter that decrypts the encrypted packets; and
7 a decoder that decodes the packets to produce a television signal.
8
- 9 44. The apparatus according to claim 43, wherein the encrypted packets
10 comprise encrypted elementary stream packets.
- 11 45. The apparatus according to claim 43, wherein the unencrypted packets and
12 encrypted packets comprise transport stream packets.
- 13 46. The apparatus according to claim 43, wherein the encrypted packets
14 comprise system information packets.
- 15 47. The apparatus according to claim 43, wherein the encrypted and
16 unencrypted packets are identified by a packet identifier.
- 17 48. The apparatus according to claim 47, wherein the unencrypted packets are
18 identified by a primary packet identifier, and wherein the encrypted packets are
19 identified by a secondary packet identifier.
20
21
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1 49. A circuit, comprising:
2 an input that receives an input stream of packets, the input stream of
3 packets comprising:
4 unencrypted packets having a first packet identifier,
5 encrypted packets having the first packet identifier,
6 encrypted packets having a second packet identifier,
7 a packet identifier reader that reads the packet identifiers of the packets in
8 the input stream of packets, and that discards the encrypted packets having the
9 first packet identifier;
10 a packet identifier re-mapping circuit that re-maps the second packet
11 identifier to the first packet identifier to produce re-mapped packets; and
12 a multiplexer that multiplexes the re-mapped packets with the unencrypted
13 packets having the first packet identifier to produce an output stream of packets.

14
15 50. The apparatus according to claim 49, wherein the encrypted packets having
16 the first packet identifier are encrypted according to a first encryption technique;
17 and wherein the encrypted packets having the second packet identifier are
18 encrypted according to a second encryption technique.

19
20 51. The apparatus according to claim 49, further comprising an MPEG decoder
21 receiving the output stream of packets.

22
23 52. The apparatus according to claim 49, wherein the circuit is embodied in an
24 integrated circuit.

25
26 53. The apparatus according to claim 49, wherein the circuit is embodied in one
27 of a field programmable gate array, a programmable logic device and an
28 application specific integrated circuit.

1 54. The apparatus according to claim 49, further comprising a demultiplexer that
 2 demultiplexes the output stream of packets based upon the packet identifiers.
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1 55. A circuit, comprising:
2 input means for receiving an input stream of packets, the input stream of
3 packets comprising:
4 unencrypted packets having a first packet identifier,
5 encrypted packets having the first packet identifier,
6 encrypted packets having a second packet identifier,
7 packet identifier reading means for reading the packet identifiers of the
8 packets in the input stream of packets, and for discarding the encrypted packets
9 having the first packet identifier;
10 packet identifier re-mapping means for re-mapping the second packet
11 identifier to the first packet identifier to produce re-mapped packets; and
12 multiplexer means for multiplexing the re-mapped packets with the
13 unencrypted packets having the first packet identifier to produce an output stream
14 of packets.

15
16 56. The apparatus according to claim 55, wherein the encrypted packets having
17 the first packet identifier are encrypted according to a first encryption technique;
18 and wherein the encrypted packets having the second packet identifier are
19 encrypted according to a second encryption technique.

20
21 57. The apparatus according to claim 55, further comprising an MPEG decoder
22 receiving the output stream of packets.

23
24 58. The apparatus according to claim 55, wherein the circuit is embodied in an
25 integrated circuit.

26
27 59. The apparatus according to claim 55, wherein the circuit is embodied in one
28 of a field programmable gate array, an application specific integrated circuit and an
29 application specific integrated circuit.

1 60. The apparatus according to claim 55, further comprising a demultiplexer that
2 demultiplexes the output stream of packets based upon the packet identifiers.
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1 61. A method of processing packets, comprising:
2 receiving an input stream of packets, the input stream of packets
3 comprising:
4 unencrypted packets having a first packet identifier,
5 encrypted packets having the first packet identifier,
6 encrypted packets having a second packet identifier,
7 reading the packet identifiers of the packets in the input stream of packets;
8 discarding the encrypted packets having the first packet identifier;
9 re-mapping the second packet identifier to the first packet identifier to
10 produce re-mapped packets; and
11 multiplexing the re-mapped packets with the unencrypted packets having the
12 first packet identifier to produce an output stream of packets.
13

14 62. The method according to claim 61, wherein the encrypted packets having
15 the first packet identifier are encrypted according to a first encryption technique;
16 and wherein the encrypted packets having the second packet identifier are
17 encrypted according to a second encryption technique.
18

19 63. The method according to claim 61, carried out in an integrated circuit.
20

21 64. The method according to claim 61, carried out in one of a field
22 programmable gate array, a programmable logic device and an application specific
23 integrated circuit.
24

25 65. The method according to claim 61, carried out in a main central processor
26 of a television set-top box.
27

28 66. The method according to claim 61, carried out in a decoder circuit of a
29 television set-top box.
30

1 68. A method of processing packets, comprising:
2 receiving an input stream of packets, the input stream of packets
3 comprising:
4 unencrypted packets having a first packet identifier,
5 encrypted packets having the first packet identifier,
6 encrypted packets having a second packet identifier,
7 reading the packet identifiers of the packets in the input stream of packets;
8 discarding the encrypted packets having the first packet identifier; and
9 re-mapping packets that have not been discarded so that they have the
10 same packet identifier.

11
12 69. The method according to claim 68, further comprising multiplexing the
13 packets that have not been discarded with each other to produce an output stream
14 of packets.

15
16 70. The method according to claim 68, wherein the encrypted packets having
17 the first packet identifier are encrypted according to a first encryption technique;
18 and wherein the encrypted packets having the second packet identifier are
19 encrypted according to a second encryption technique.

20
21 71. The method according to claim 68, carried out in an integrated circuit.

22
23 72. The method according to claim 68, carried out in one of a field
24 programmable gate array, a programmable logic device and an application specific
25 integrated circuit.

26
27 73. The method according to claim 68, carried out in a main central processor
28 of a television set-top box.
29

74. The method according to claim 68, carried out in a decoder circuit of a television set-top box.

75. The method according to claim 68, further comprising demultiplexing the output stream of packets based upon the packet identifiers.

1990		1991		1992		1993		1994		1995		1996		1997		1998		1999		2000		2001		2002		2003		2004		2005		2006		2007		2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		2018		2019		2020		2021		2022		2023		2024		2025		2026		2027		2028		2029		2030		2031		2032		2033		2034		2035		2036		2037		2038		2039		2040		2041		2042		2043		2044		2045		2046		2047		2048		2049		2050		2051		2052		2053		2054		2055		2056		2057		2058		2059		2060		2061		2062		2063		2064		2065		2066		2067		2068		2069		2070		2071		2072		2073		2074		2075		2076		2077		2078		2079		2080		2081		2082		2083		2084		2085		2086		2087		2088		2089		2090		2091		2092		2093		2094		2095		2096		2097		2098		2099		2100		2101		2102		2103		2104		2105		2106		2107		2108		2109		2110		2111		2112		2113		2114		2115		2116		2117		2118		2119		2120		2121		2122		2123		2124		2125		2126		2127		2128		2129		2130		2131		2132		2133		2134		2135		2136		2137		2138		2139		2140		2141		2142		2143		2144		2145		2146		2147		2148		2149		2150		2151		2152		2153		2154		2155		2156		2157		2158		2159		2160		2161		2162		2163		2164		2165		2166		2167		2168		2169		2170		2171		2172		2173		2174		2175		2176		2177		2178		2179		2180		2181		2182		2183		2184		2185		2186		2187		2188		2189		2190		2191		2192		2193		2194		2195		2196		2197		2198		2199		2200		2201		2202		2203		2204		2205		2206		2207		2208		2209		2210		2211		2212		2213		2214		2215		2216		2217		2218		2219		2220		2221		2222		2223		2224		2225		2226		2227		2228		2229		2230		2231		2232		2233		2234		2235		2236		2237		2238		2239		2240		2241		2242		2243		2244		2245		2246		2247		2248		2249		2250		2251		2252		2253		2254		2255		2256		2257		2258		2259		2260		2261		2262		2263		2264		2265		2266		2267		2268		2269		2270		2271		2272		2273		2274		2275		2276		2277		2278		2279		2280		2281		2282		2283		2284		2285		2286		2287		2288		2289		2290		2291		2292		2293		2294		2295		2296		2297		2298		2299		2300		2301		2302		2303	
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1 76. A circuit, comprising:
2 an input that receives an input stream of packets, the input stream of
3 packets comprising:
4 unencrypted packets having a first packet identifier,
5 encrypted packets having the first packet identifier,
6 encrypted packets having a second packet identifier,
7 a packet identifier reader that reads the packet identifiers of the packets in
8 the input stream of packets, and that discards the encrypted packets having the
9 first packet identifier; and
10 a packet identifier re-mapping circuit that re-maps at least one of the second
11 packet identifier and the first packet identifier so that the packets that have not
12 been discarded have the same packet identifier.

13
14 77. The apparatus according to claim 76, further comprising a multiplexer that
15 multiplexes the re-mapped packets with the unencrypted packets having the first
16 packet identifier to produce an output stream of packets.

17
18 78. The apparatus according to claim 76, wherein the encrypted packets having
19 the first packet identifier are encrypted according to a first encryption technique;
20 and wherein the encrypted packets having the second packet identifier are
21 encrypted according to a second encryption technique.

22
23 79. The apparatus according to claim 76, further comprising an MPEG decoder
24 receiving the output stream of packets.

25
26 80. The apparatus according to claim 76, wherein the circuit is embodied in an
27 integrated circuit.

1 81. The apparatus according to claim 76, wherein the circuit is embodied in one
2 of a field programmable gate array, a programmable logic device and an
3 application specific integrated circuit.